31. The host cell of claim 30, wherein said host cell is eukaryotic.

32. A method of expressing and recovering a protein having cell calcification inhibitory activity comprising the steps of:

(i) transfecting a cell with the vector of claim 26;

(ii) propagating said transfected cell; and

(iii) recovering said protein from said propagated cells.

33. A method of expressing an antisense nucleic acid from an expression vector incorporating the nucleic acid from any one of claims 2, 20-22 and 25 comprising the steps of:

(i) transfecting a cell with an expression vector comprising the incorporated nucleic acid from any one of claims 2, 20-22 and 25, wherein said incorporated nucleic acid is transcribed as an antisense molecule; and

(ii) propagating said transfected cell,

wherein said antisense expression inhibits cell calcification inhibitory activity in said transfected cell.--

REMARKS

Summary of the Office Action

The informal drawings filed with the application have been objected to in the cited form PTOL 948.

Claim 2 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claim 2 stands rejected under 35 U.S.C. § 102(b), as being anticipated by Dhordain *et al.*, (*Mech Devel* (1995) 50:117-128).

Summary of Response to Office Action

Applicants acknowledge the objection to informal drawings. Formal drawings will be provided once allowable subject matter is identified.

Claims 1 and 3-19 have been canceled to expedite prosecution.

Claim 2 has been amended in accordance with the suggestion offered in the Office Action.

Claims 20-33 have been added to more clearly define the invention. Support for claims 20-33 can be found at Figure 1 and page 5, lines 13-22 (language for substitutions and derived); page 6, lines 21-26 (probes); page 9, lines 17-26 (for excised junction); page 11 lines 9-25 (host cells, vectors, expression of encoded protein); page 17, lines 2-5 (antisense) and lines 6-19 (vector, host cells); page 21, line 7 to page 22, line 16, Example 2-5 (DNA synthesizing ability); and sequence listing (SEQ ID NOS:1-4). Claims 2 and 20-33 are currently pending. The new claims introduce no prohibited new matter.

Section 112, Second Paragraph Rejection

Claims 2 stands rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

Applicants appreciate the suggestion offered in the Office Action to incorporate the limitations of claim 1 into claim 2. As claim 2 has been amended to incorporate the elements of claim 1, the grounds for this rejection are moot. For these reasons, Applicants respectfully request that the rejection be withdrawn.

Section 102(b) Rejection

Claim 2 stands rejected under 35 U.S.C. § 102(b) allegedly for being anticipated by Dhordain *et al.*, (*Mech Devel* (1995) 50:117-128). Applicants maintain that the cited reference

does not apply because the recited elements of amended claim 2 and/or new claims 20-33 are not identically shown in Dhordian *et al.*

The Office Action asserts, incorrectly, that the reference teaches cDNA encoding c-erg which lacks the specific amino acids 197-221 and 223-225 of SEQ ID NO:2 of the present invention (the opposite is true, *i.e.*, C-11 lacks 81 nucleotides comprising this region, compare Figure 2 of Dhordain *et al.* with Figure 1 and SEQ ID NO:1 of the present invention; see also page 9, lines 19-24 of the present specification). Further the Office Action asserts that c-erg has calcification inhibitory activity. However, as stated in *In re Bond,* 910 F.2d 831, 15 USPQ2d 1566 (Fed Cir. 1988):

> "For the prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference."

As amended, claim 2 recites that, in addition to calcification inhibitory activity, the encoded proteins of the present invention possess increased DNA synthesizing ability. As disclosed in the present specification, c-erg does not inherently possess increased DNA synthesizing ability (see Example 2-5 and Figure 4). Thus, because both the disclosed c-erg of the specification and that of Dhordain *et al.* are apparently identical proteins (compare SEQ ID NO:3 of this application with Figure 1 of Dhordain *et al.*), the reference cited does not anticipate amended claim 2 nor new claims 20-33 since every element of the presently claimed invention is not disclosed in a single reference (*i.e.*, the reference is silent with respect DNA synthesizing ability). Therefore, as the test for anticipation cannot be met with respect to the cited reference, Applicants respectfully request that the rejection be withdrawn.

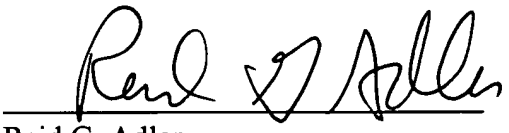
CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17, which may be required, to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully Submitted,

MORGAN, LEWIS & BOCKIUS LLP

Dated: November 16, 1999 By 

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